Declaration of Mailing

I, Therese Zemel, certify under penalty of perjury under the laws of the State of Washington, that on the below date, true and correct copies of this document were sent via U.S. mail to all parties of record as specified by the Council's Service List dated 9/20/01 at the addresses provided therein. Dated this _____ day of September, 2001, at Bellingham, Washington.

_____

BEFORE THE STATE OF WASHINGTON
ENERGY FACILITY SITE EVALUATION COUNCIL

In the Matter of	)	
Application No. 99-1	)	
	)	EXHIBIT _____ (PJC-T)
SUMAS ENERGY 2, INC.	)	
	)	
SUMAS ENERGY 2 GENERATION	)	
FACILITY	)	
_____	)	

WHATCOM COUNTY'S PREFILED TESTIMONY ON REVISED APPLICATION
WITNESS: PAULA J. COOPER

Q. Please re-introduce yourself to the Council.

A. Paula J. Cooper.

Q. What is the subject of your testimony?

A. My testimony focuses on the evaluation of potential impacts to flood conditions resulting from the proposed SE2 facility and the unsteady flow modeling proposed by SE2 in the Second Revised Application.

Q. What is your occupation and title?

A. I am a water resources engineer specializing in floodplain management. I am employed as Whatcom County's Special Projects Manager, where I manage the County's River and Flood Section within the Public Works Department.

Whatcom County Prosecuting Attorney
311 Grand Ave.
Bellingham, WA 98225
(360) 676-6784

Q. Again, please describe your background for the Council.

A. For the last thirteen years I have worked for both county government and private consultants in the areas of floodplain management and water resources engineering. Throughout my career I have had extensive experience with the application of hydrologic and hydraulic models and related analyses, which has provided me with an in-depth understanding of the limitations in different types of models. I began working for Whatcom County in my current position in August of 1998. Since then I have been involved in numerous issues involving the Nooksack River and its floodplain including sitting on the Nooksack River International Task Force whose primary purpose is to resolve the international flooding problem resulting from Nooksack River overflows into the Sumas River floodplain.

I received Bachelors of Science degree in Agricultural Engineering from Rutgers University in 1986 and a Masters of Science degree in Civil and Environmental Engineering from the University of Wisconsin in 1988. A copy of my resume was previously admitted into the record as Exhibit PJC-1.

Q. What materials have you reviewed in preparing this written testimony?

A. I have reviewed the following materials: those portions of Sections 1.4.4, 2.15.4, and 3.3.4 of the Second Revised Application pertaining to flood assessment and mitigation, the prefiled testimony of Hsueh-Ju Chang, and that of Douglas Sovern.

Q. Have you reviewed the scope of work for the flood modeling work proposed by the Applicant?

A. A written scope of work detailing the steps to be taken in performing the work was not available for my review. However, I have discussed the details of the proposed modeling scope of work with Hsueh-Ju Chang of URS Corporation. Based on this discussion, it is my understanding that the work will include:

- **Model Calibration:** The existing FEQ model for the Everson-Sumas overflow corridor will be refined to represent the conditions at SE2 site in more detail. Additional cross-sections in the vicinity of the proposed SE2 facility will be generated from the 1993 topographic data used to develop the model. This model will be run and the computed model results will be compared with observed high water marks collected during the 1990 flood event to calibrate the model.

- **Development of Base Conditions Model:** The calibrated model will the be revised to reflect recent filling of floodplain areas in the vicinity of the SE2 site. The model will be run for the 1990 event as well as a range of flood events to define existing conditions in the overflow corridor. The results of this model will

Whatcom County Prosecuting Attorney
311 Grand Ave.
Bellingham, WA 98225
(360) 676-6784

represent the base conditions, which will be the basis for comparison to evaluate the impacts of the fill associated with the SE2 facility.

- **Development of Proposed Conditions Model:** The base condition model will be revised to reflect the fill associated with SE2. This model will be run for the same flood events as the base condition model was run to allow for a direct comparison of computed flood levels.

Q. Does the scope of the modeling work proposed by the applicant address the concerns raised during your previous written and oral testimony during the first SE2 hearing?

A. Almost. The approach I just outlined will address my concern that the previous modeling work using a steady-state model evaluated only the loss of flood conveyance but did not represent the impacts associated with the loss of floodplain storage resulting from the SE2 fill. In addition, the approach will provide a broader context for us to understand the cumulative impacts resulting from the several recent projects involving fill in the floodplain. Even if the SE2 site only impacts flood levels by 1 or 2 inches, if the recent fill projects in the area have had similar impacts, the cumulative impacts of all of them together could have significant impacts. And if those impacts are in a location where they would increase the frequency or magnitude of flood damages to existing structures or properties, these activities could be making existing flood problems worse. I would like to see URS run the calibrated model based on the 1993 topography for the same range of flood events they run the base model, so we can better understand the significance of the SE2 fill.

Although I agree with the proposed modeling approach I just outlined, I feel an additional task should be included. If the model results indicate that the SE2 fill will adversely affect flood levels and adjacent properties, the model should be used to determine if the proposed mitigation is effective in actually mitigating these impacts. The determination of whether mitigation is 'reasonable' should be based on an evaluation of whether it will reduce impacts to levels deemed acceptable by those impacted, not simply what SE2 believes is reasonable. The computer model itself can provide us with an objective means for determining the usefulness of the mitigation ultimately proposed. It is too bad that this work has not already been completed for the Council's and the parties' consideration.

END OF TESTIMONY

Whatcom County Prosecuting Attorney
311 Grand Ave.
Bellingham, WA 98225
(360) 676-6784